

Amendment to the Claims:

This listing of claims will replace all prior versions and listing of claims in the above-referenced application.

1. (Currently Amended) A substrate system, comprising:

~~photo-polymerizable monomers~~ a photo-polymerized cross-linked polymer, wherein the polymer comprises:

~~bioactive molecules admixed with the monomers, and~~

~~a material insoluble by the polymer monomers and wherein the insoluble material that shields the bioactive molecules from degradation caused by a photo-polymerizing environment from a polymerization process, and transitions from a solid to a gel at or above approximately~~

~~wherein the monomers cross-link to form a polymer that contains the bioactive molecules and insoluble material,~~

~~and wherein the insoluble material is a solid at below the body temperature of a living organism and a gel at the body temperature of a living organism.~~

2. (Cancelled).

3. (Currently Amended) The system of claim 1, wherein the bioactive materials of the substrate system ~~replace, repair or restructure~~ repair, restructure or are substituted for the tissue of the living organism.

4. (Cancelled).

5. (Cancelled).

6. (Original) The system of claim 1, wherein the insoluble material is gelatin.

7.-11. (Cancelled).

12. (Previously Presented) The system of claim 1, wherein the bioactive molecules are proteins.

13.-20. (Cancelled).

21. (Currently Amended) The system of claim 1, further including a binder, wherein the binder binds the insoluble material to shield the bioactive molecules from degradation caused by a photo-polymerizing environment ~~a polymerization process~~.

22. (Previously Presented) The system of claim 21, wherein the binder is a sugar.

23. (Cancelled).

24. (Cancelled).

25. (Previously Presented) The system of claim 1, further including a plasticizer, wherein the plasticizer increases the flexibility of the cross-linked polymer.

26. (Previously Presented) The system of claim 25, wherein the plasticizer is a polyethylene glycol.

27. (Previously Presented) The system of claim 1, further including a disaggregant, wherein the disaggregant aids with the solid-gel transition.

28. (Previously Presented) The system of claim 27, wherein the disaggregant is a cross-linked synthetic polymer.

29. (Currently Amended) The system of claim 1, wherein the insoluble material comprises granulated particles that shield the bioactive molecules from degradation caused by a photo-polymerizing environment ~~a polymerization process~~.

30. (Currently Amended) The system of claim 1, further comprising a photopolymerization means for polymerizing ~~the~~ monomers to produce the cross-linked polymer ~~including~~ comprising the bioactive molecules and insoluble material.

31. (Currently Amended) The system of claim 30, wherein the photopolymerization means ~~uses visible radiation for polymerizing~~ polymerizes the monomers with visible radiation to produce the cross-linked polymer.

32.-55. (Cancelled).

56. (Currently Amended) The system of claim ~~[[82]]~~ 1, wherein the insoluble material comprises granulated particles, wherein the granulated particles shield ~~protect~~ the bioactive molecules from ~~shield the bioactive molecules from~~ degradation caused by a photo-polymerizing environment ~~the polymerization process~~.

57. (Previously Presented) The system of claim 82, wherein the drug delivery system is a dissolution-controlled system.

58.-81. (Cancelled).

82. (Previously Presented) The system of claim 1, further comprising a drug-loaded delivery system, wherein the drug-loaded delivery system delivers the bioactive molecules to the living organism.

83. (Cancelled).

84. (Cancelled).